

5880

U. S. COAST & GEODETIC SURVEY  
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Ed. June, 1923

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
R. S. Patton, Director

State: Massachusetts

DESCRIPTIVE REPORT

~~Monographic~~ } Sheet No. 3  
Hydrographic }

LOCALITY

Buzzards Bay.

Approaches to New Bedford Harbor.

1935

CHIEF OF PARTY

Wm. D. Patterson.

5880

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

U. S. COAST & GEODETIC SURVEY  
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00T 21 1935  
REG. NO.

Acc. No. \_\_\_\_\_

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 3

REGISTER NO. 5880

State Massachusetts

General locality Buzzards Bay

Locality Approaches to New Bedford Harbor

Scale 1:10,000 Date of survey May to August, 1935

Vessel Field Party No. 5

Chief of Party Lieut. Wm. B. Patterson

Surveyed by V.A. Bishop; D.S. Ling; W.H. Jennings; G.F. Jordan, Surveyors.

Protracted by G.F. Jordan & J.C. McIlwaine

Soundings penciled by Wm.D. Patterson; G.F. Jordan & C.R. Smith

Soundings in ~~fathoms~~ feet

Plane of reference Mean low water

Subdivision of wire dragged areas by \_\_\_\_\_

Inked by Harold W. Murray

Verified by Harold W. Murray

Instructions dated \_\_\_\_\_ May 14, 1934., 19

Remarks: \_\_\_\_\_

K.W.W. 10/17/91

DESCRIPTIVE REPORT TO ACCOMPANY  
HYDROGRAPHIC SHEET NO. 3 (Field Number)

APPROACHES TO NEW BEDFORD HARBOR

MASS. 1935.

Project HT-179, Lieut. Wm. D. Patterson, Chief of Party.  
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DATE OF INSTRUCTIONS:

This survey was made in accordance with the Director's Instructions dated July 11, 1934 and Supplemental Instructions dated May 9, 1935.

SCOPE OF WORK:

The work consisted of the survey of all navigable waters in Apponaganset Bay and River, Clark Cove, approach to New Bedford Harbor, and Nasketucket Bay. The southern limit of this survey is a line connecting the following positions: - Latitude  $41^{\circ} 34.0'$ ; Longitude  $70^{\circ} 56.4'$ ; Latitude  $41^{\circ} 34.0'$ , longitude  $70^{\circ} 55.0'$ ; Latitude  $41^{\circ} 35.0'$ , Longitude  $70^{\circ} 53.0'$ ; Latitude  $41^{\circ} 35.0'$ , Longitude  $70^{\circ} 50.0'$ . The northern limits on approach to New Bedford Harbor is due west from the Range Beacon, where junction is made with sheet "4". This survey joins sheet "5" at its eastern limits. (4-5882(1935))

SIGNALS:

The signals used are obtained from triangulation of 1934, with exception of Tack Factory Chimney 1902, and topography of 1935. A list of signals is given under cover of Volume "1" of the records.

SURVEY METHODS:

The standard three-point sextant fix was used for obtaining positions. Depths were obtained with the standard lead-line, a mahogany wire-center tiller rope with cupped lead. The line was marked in fathoms and feet.

In the development of shoals and search for least water, the method of drift sounding generally employed was to mark the location with a small buoy and drift down on the buoy, broadside with two and three lead lines over the side. Numerous overlapping drifts were made so that the location was covered within a 50 meter radius of the charted sounding or least water indication.

DISCREPANCIES:

Latitude  $41^{\circ} 34.45'$ , longitude  $70^{\circ} 56.8'$ , the 4th and 5th

soundings after position 107 H (red) is believed to be 1 fathom too great in error. A reduced sounding of  $10\frac{1}{2}$  and  $8\frac{1}{2}$  feet conform to the adjacent contours. *1 fm. deducted. Xamm.* ✓

P1 Latitude  $41^{\circ} 34.15'$ , longitude  $70^{\circ} 56.48'$ , the 4th and 5th soundings after position 20 V (red) are believed to be 3 feet less in error. A new leadsman started the day, and although his soundings up to this point agree with adjacent soundings, considering the following paragraph, it is believed an error exists here. *Sdgs. not plotted, H=2230(1895) shows the soundings were too shoal. Rff*

P2 Latitude  $41^{\circ} 34.7'$ , longitude  $70^{\circ} 56.47'$ , the soundings between 24 V and 25 V (red) are believed to be 2 feet to 3 feet great in error. See paragraph above. *Not plotted. Rff*

P3 Latitude  $41^{\circ} 34.17'$ , longitude  $70^{\circ} 56.27'$ , the 13 foot sounding after position No. 2 K (red), appears to be one fathom less, in error, although this sounding was checked and made by an experienced leadsman; a subsequent 1 hours search was made to verify this sounding with least water of 19 feet at position No. 5 E (blue). Recommend changing the 13 feet to 19 feet since it is believed the leadsman was 1 fathom in error. *Sdgs changed to 19 ft. Xamm.* ✓

TP4 Latitude  $41^{\circ} 36.3'$ , longitude  $70^{\circ} 53.95'$ , sounding before position No. 94 B (red), at the position, and 2 soundings after, appear to be one fathom less in error. Suggest changing the soundings from 13 to 19 feet. *Sdgs changed to 19 ft. Xamm.* ✓

# DANGERS:

Latitude  $41^{\circ} 35.47'$ , longitude  $70^{\circ} 52.90'$ , in deep water approach to New Bedford Harbor, a rock with least water of  $18\frac{1}{2}$  feet at position # 8 G (blue). *18' plotted.* ✓

Latitude  $41^{\circ} 35.75'$ , longitude  $70^{\circ} 53.05'$  in deep water approach to New Bedford Harbor, a rock with least water of  $20\frac{1}{2}$  feet at position # 2 H (blue). *20' plotted* ✓

Latitude  $41^{\circ} 35.0'$ , longitude  $70^{\circ} 50.85'$ , a 17 and 11 foot sounding at positions # 26 & 27 K (green), respectively; on a rocky shoal. ✓

Latitude  $41^{\circ} 35.28'$ , longitude  $70^{\circ} 50.75'$ , a 4 &  $5\frac{1}{2}$  foot sounding at positions # 2 & 3 L (green), respectively, on rocks. ✓

Latitude  $41^{\circ} 35.8'$ , longitude  $70^{\circ} 50.7'$ , a line of rocks on the west side of Long Island, barring passage between the island and Sconticut Neck, at low water. These rocks are awash 1 foot at mean low water. There is also a line of rocks on the east side of the island, barring passage between it and West Island, except for a channel 10 feet wide with 7 feet of water at mean low water. These rocks bare at low water, but nothing marks the channel at high water. These lines of rocks formerly were the foundation for a bridge connecting West Island with Sconticut Neck. *Not supported by sdgs. Xamm.* ✓



The waters of Nasketucket Bay are particularly dangerous as may be readily noted on the smooth sheet. Many additional rocks have been located. However, 4 private day beacons now exist to facilitate navigation to Little Bay, these are shown as such on topographic sheet "G". T-6357 (1935)

Other dangers which exist in the form of rocks and shoals are readily distinguished as such on the smooth sheet.

#### CHANNELS:

The main entrance channel to New Bedford Harbor shown on Chart 252 to be of 26 feet depth in June 1934, may be seen on the smooth sheet to be deeper. However this channel with addition of a continuation channel southeastward was in the process of being dredged by the U.S.E.D. Dredger S.S. MARSHALL when the field party was disbanded. Rock ledges are being removed by blasting, and the latest U.S. Engineers surveys should be used for charting, after the work of dredging and blasting is completed.

True for area approx. N.N.W. of Butler's L.H.

The unmarked channel between West and Long Islands is covered under dangers in this report.

#### ANCHORAGES:

There are no anchorages to report. The bottom is generally deep, the character of the bottom is generally sticky mud and sand, and harbors are near at hand for all craft.

Numerous Yachts anchor in ~~Padanarum~~ <sup>Apponaugansett Bay</sup> Harbor between the breakwater Light and the bridge, and small craft anchor in Clark Cove and Little Bay.

Freighters and Barges often anchor one mile southeast from Clarks Point.

#### COMPARISON WITH PREVIOUS SURVEYS:

The following charted soundings were investigated:

| Latitude  | Longitude | Charted depth | Depth found       | Pos. No.                           | Remarks.   |
|-----------|-----------|---------------|-------------------|------------------------------------|--|
| 41° 35.03 | 70° 56.85 | 6             | 7                 | 6 F (bl)                           | Retain 6', small <sup>sand</sup> shoal reported. |
| 34.58     | 56.85     | 5             | prevailing        | Pg 47 V 12                         | Not found) Dr. Prescott reports                  |
| 34.51     | 56.82     | 6             | "                 | "                                  | " " " " these rocks exist but                    |
| 34.47     | 56.80     | 6             | "                 | "                                  | " " " " are charted much too far offshore.       |
| 34.72     | 56.50     | 2             | <del>delete</del> | Pos 27V & 29M red, pg.47, Vol. 12. | Not found-delete-not known locally               |
| 34.77     | 56.50     | Bare @ H.W.   | "                 | "                                  | " " " Rock awash 70 M. northwest.                |
| 34.73     | 56.62     | 5             | 4 1/2             | 2 E blue                           | Rock-Chart as 4 1/2 feet.                        |
| 34.65     | 56.55     | 7             | 8                 | 3 E                                | " -See also Pos. 3 U red-Chart 8'                |
| 34.57     | 56.28     | 4             | prevailing        | Pg.47 V 12                         | Not found, retention questionable.               |

| Latitude  | Longitude | Charted depth' | Depth found' | Pos. No.                 | Remarks.   |
|-----------|-----------|----------------|--------------|--------------------------|--|
| 41° 34.47 | 70° 56.24 | 14             | prevailing   | Pg47Vol.12               | No search made, retain 14'   |
| " 34.70   | 56.05     | 7              | delete       | "                        | Not found retention questionable.  |
| " 35.12   | 55.84     | 6              | not retained | "                        | Dr. Prescott reports 4 feet. Recommend charting 4 feet.                                    |
| 35.18     | 55.75     | 3              | 2 1/2        | 67 W (red)               | Rock - Chart 2 1/2 feet.   |
| 35.18     | 55.79     |                |              |                          | No record of search made-retain 4'.  |
| 35.25     | 55.74     | 9              | (2) 3 1/2    | 68, 69 V (red)           | Rocks-Chart two 3 1/2 foot rocks.  |
| 35.45     | 55.65     | (1) 5, (2) 6   | (2) 7        | 4, 5 F (blue)            | Retention charted depths question  |
| 34.15     | 54.85     | 6              | 10 1/2       | 9 to 10 K (red)          | See next position. Chart 10 1/2 Rk.  |
| 34.13     | 54.87     | 11             | 6 1/2        | 11 K (red)               | See position above. Chart 6 1/2 Rk.  |
| 34.49     | 55.15     | 14             | 13           | 32 L (red)               | Chart 13 feet. Stk.  |
| 34.58     | 55.14     | 10             | 9            | 31 L (red)               | Chart 9 feet. Rky.   |
| 34.64     | 55.20     | 13             | 12           | 28 L (red)               | Chart 12 feet. Rky.  |
| 34.22     | 54.78     | 15             |              |                          | No search made, retain 15 feet.  |
| 35.42     | 54.45     | 6              | 8            | 2 F (blue)               | * No longer exists, chart 8 feet.  |
| 35.50     | 54.53     | 1              |              |                          | Not found, two parties searched for rocks, delete.   |
| 35.47     | 54.48     | bare           |              | Bare 1' M.L.W. 33 A (Gr) |  |
| 35.70     | 54.60     | (2) bare       | Awash        | 3 F (blue)               | Chart as rock awash.   |
| 35.33     | 53.95     | 17             | 18           | Topo Sheet "D",          | Chart as rocks awash.  |
| 35.63     | 53.87     | 12             |              | 11 T (red)               | No search for least water retain 17'   |
| 35.67     | 53.87     | 1              | 1 1/2        |                          | No search made retain 12' sounding.  |
| 35.66     | 53.98     | sub. Rk.       | 2 1/2        | 16 P (gr.)               | See 15 P (gr.) also retain rock 1 1/2'.  |
| 35.70     | 54.00     | (2) bare       |              | 1 F (blue)               | See 17 P (gr.) also chart rock 2 1/2'.   |
| 34.92     | 53.75     | 23             | 28           |                          | Found to be rocks awash at low water.  |
| 35.29     | 53.65     | 21             | 23 1/2       | 6 C (blue)               | Deletion of 23' sounding question  |
| 35.45     | 53.75     | 21             | 26 1/2       | 5 C (blue)               | " " 21' " questionable.  |
| 35.43     | 53.48     | 23             | 28 1/2       | 4 C (blue)               | " " 21' " "  |
| 35.74     | 53.05     | 20             | 20 1/2       | 8 H (blue)               | " " 23' " "  |
| 35.47     | 52.99     | 21             | 24           | 2 H (blue)               | See also 2 C (blue). Retain 20 foot sounding on a rock.                                    |
| 35.47     | 52.91     | 18             | 18 1/2       | 3 H (blue)               | Rky-deletion of 21' sounding ?'able.   |
| 35.5      | 52.2      | 11' shoal      | 11           | 8 G (blue)               | Rk. see also pos. 30 (bl)-Chart 18' Rk.  |
| 35.72     | 52.03     | 9              | 9            | 88-92 L (red)            | Thorough development present   |
| 35.77     | 52.00     | 3              | 2 1/2        | 100-103 L (red)          | survey.  |
| 35.81     | 52.01     | 3              | 4            | 4 H (blue)               | Retain 9' rocky sounding.  |
| 35.15     | 51.68     | 7              | 8 1/2        | 5 H (blue)               | Chart 2 1/2' Rk.   |
| 35.27     | 51.95     | 13             | 14           | 6 H (blue)               | " 4' "   |
| 35.05     | 51.15     | (3) rocks      |              | 7 H (blue)               | Retain 7' sounding.  |
| 35.02     | 50.85     | 14             | 11           | 16 D (blue)              | " 13' S  |
| 35.12     | 50.62     | 17             |              |                          | Not searched for-very rocky shore-retain.  |
| 35.12     | 50.23     | 3              |              | 27 K (gr.)               | See also 26 K (gr.)-Chart 11' rock.  |
| 35.52     | 50.60     | 1/2            |              |                          | Not searched for-retain 17' sounding.  |
| 35.56     | 50.70     | 6              |              | 34 M (gr.)               | Chart rock awash.  |
| 35.57     | 50.87     | rock awash     |              | 31 M (gr.)               | Chart rock bare 1 1/2 feet.  |
| 36.08     | 50.85     | "              |              |                          | Not searched for-retain 6' sounding.   |
| 36.08     | 50.85     | "              |              |                          | Not found-very rocky-retain.   |
| 36.08     | 50.85     | "              |              |                          | Not found-very rocky-retain.   |
| 36.00     | 52.77     | 18             |              |                          | This survey is so much more complete than chart-recommend this survey only in this region. |
| 36.02     | 52.15     | 6              |              |                          | Not investigated-retain.   |
| 36.03     | 52.11     | Sub. rock      | bare 1 1/2   | 1, 2 D (blue)            | Chart rocks on this point as on this survey.   |
| 36.07     | 52.12     | rock awash     |              |                          | Not found-rocky area-retain.   |
| 36.11     | 52.14     | 4              |              |                          | " " " " "  |

*shown by \* on smooth sheet*

| Latitude | Longitude | Charted depth          | Depth found | Pos. No.           | Remarks.  |
|----------|-----------|------------------------|-------------|--------------------|---|
| 41 36.15 | 70° 52.20 | 6                      | 1 1/2       | 98 W(red)          | See also 99 W(red)-Chart 1 1/2' Rk.                               |
| 42 36.17 | 52.15     | 6                      | 2 1/2       | 96 W(red)          | " " 94,95,97 W(red) Chart Rks. this survey.                       |
| 46 36.34 | 52.11     | 6                      |             |                    | Not investigated, part of 6 foot contour. ✓                       |
| 47 36.50 | 52.07     | bare H.W. L.W          |             |                    | Not found, retain as rock awash @ L.W. ✓                          |
| 48 36.28 | 52.48     | (2) 18 (WD 1-18, 1-19) |             |                    | Not investigated-retain.  |
| 49 36.15 | 52.76     | 12 ✓                   |             |                    | " " " "   |
| 50 36.20 | 52.97     | 11 ✓                   |             |                    | " " " "   |
| 51 36.63 | 52.90     | 10 ✓                   | 13 1/2      | 7 G(blue)          | Retain 10' sounding, questionable.                                |
| 52 36.73 | 52.73     | 18                     |             |                    | Not investigated-part of 18 foot contour. ✓                       |
| 53 36.90 | 52.4      | (2) 18 ✓               |             |                    | " " retain. ✓   |
| 54 37.04 | 52.93     | 6 ← 6.9 in record      |             |                    | " " " " as 7.   |
| 55 35.9  | 52.6      | (2) 18 (WD 1-18, 1-19) | 22 1/2      | 19 C(blue)         | Retention of two 18' soundings questionable. retain               |
| 74 35.9  | 53.0      | (3) 18                 |             |                    | Not investigated, retain. ✓                                       |
| 75 36.2  | 53.7      | (4) 12                 |             |                    | Close survey made, retention questionable. not retained.          |
| 76 36.0  | 53.0      | (6) 17, 18             |             |                    | Retain-evidence from present survey.                              |
| 77 36.23 | 53.33     | 18 delete 23           |             |                    | 1 C(blue) Question retaining 18' sounding.                        |
| 78 36.28 | 53.02     | 12                     |             |                    | Not investigated, part of 12 foot contour. ✓                      |
| 79 36.40 | 53.17     | 3                      | 3 1/2 ✓     | 14 P(gr.)          | Chart 3 1/2 foot Rk. ✓  |
| 80 36.43 | 53.21     | 2                      | 3 1/2 ✓     | 13 P(gr.)          | Chart 3 1/2 foot Rk. ✓  |
| 81 36.40 | 53.30     | 5 ✓                    | 7           | 1 H(blue)          | Chart 7 foot Rk.  |
| 82 36.55 | 53.10     | 6                      |             |                    | Not investigated, believe part of 6 foot contour. ✓               |
| 83 37.23 | 53.35     | 5 5 1/2                |             |                    | " " " " 5 " " "   |
| 84 37.40 | 53.30     | 1 1/2, 3               |             |                    | Part of spit-for north end of spit see 29 P(red). ✓               |
| 85 37.58 | 53.35     | 4 1/2                  | 6           | 12 P(gr.)          | Question retaining 4' sounding.                                   |
| 86 37.73 | 53.42     | (2) Rks. awash         |             |                    | Investigated-not found-see pos. 35 to 38 B(blue) ✓                |
| 87 37.3  | 53.7      | Rocks                  |             |                    | Rocky & investigated @ Low Tide, Chart present survey findings. ✓ |
| 90 37.4  | 53.92     | Bare H.W.              |             |                    | Not investigated a rocky shore, retain. ✓                         |
| 91 36.77 | 54.28     | 9 ✓                    | 13          | 5 G(blue)          | Not found, probably rock, retain. ✓                               |
| 92 36.92 | 54.48     | 6 ✓                    | 9 1/2       | 4 G(blue)          | " " " " " " "   |
| 93 37.05 | 54.24     | 11 1/2                 | 12 1/2      | 125,126,127 F(red) | Chart results present survey in this area, see also 128 F(red). ✓ |
| 94 37.19 | 54.76     | 55 1/2                 | 7 1/2       | 3 G(blue)          | Retention 5' sounding questionable.                               |
| 95 37.21 | 54.57     | 6 1/2                  |             | 1 G(blue)          | If charted 6' sounding is a rock retain, otherwise delete.        |
| 96 37.25 | 54.55     | 4                      | 4 ✓         | 2 G(blue)          | Chart 4' rock-Pos. 4 L Sheet 4 shows 4 1/2' on this rock.         |

\* Certainty that 6 foot sounding does not exist confirmed by local authentic information.

#### REMARKS:

While survey of this sheet was nearing completion, orders were received to disband the field party. There remained further investigation of Charted soundings and additional development that would have been accomplished. Wire drag examination of certain shoals was also prevented by the same reason.

#### GEOGRAPHIC NAMES:

Geographic names are given in topographic report of sheets "D" & "G". For other names retain those on Chart 252.

T-6374 & T-6357


LANDMARKS FOR CHARTS:

These will be submitted as a separate report for the entire season.

Respectfully submitted,

George F. Jordan,  
Surveyor.

APPROVED AND FORWARDED:

  
Wm. D. Patterson, Lieut.,  
Chief of Field Party No. 5.

ADDITIONAL NOTES BY CHIEF OF PARTY

HYDROGRAPHIC SHEET NO. 3

Mass. 1935.

The Dr. Prescott, mentioned by Mr. Jordan, is a retired doctor living at South Dartmouth who has made a detailed study of the rocks in this locality and has taken photographs, showing ranges, at each rock and shoal along the shore between Salters Point and Clark Point. His information is considered to be very reliable. ✓

Inshore hydrography was done with a large skiff, built by the field party, using an outboard motor. This work could only be done on calm days and even then the shore could not be approached very closely in many localities due to the many rocks and boulders along the shore. It was impossible, except in a few localities, to develop the low water line. ✓

Wire drag examination of shoals was prevented by the disbandment of the party due to lack of funds. This work is very important in this rocky locality, and should be done at the next survey. ✓

Mr. Jordan was discharged before this report could be typed and therefore was not on hand to sign the report. ✓

Respectfully submitted,

*Wm. D. Patterson*

Wm. D. Patterson, Lieut.,  
Chief of Field Party No. 5.

# STATISTICS

for

Sheet No. 3 (Field No.)

| DATE   | DAY | VOLUME    | POSITIONS | SOUNDINGS | MILES(Stat.) |
|--------|-----|-----------|-----------|-----------|--------------|
| May    | 3   | A (red)   | 1         | 135       | 960          |
|        | 6   | B         | 1         | 146       | 936          |
|        | 8   | C         | 1 & 2     | 145       | 887          |
|        | 9   | D         | 2         | 171       | 893          |
|        | 11  | E         | 2 & 3     | 66        | 376          |
|        | 13  | F         | 3         | 161       | 835          |
|        | 15  | G         | 3 & 4     | 142       | 791          |
|        | 16  | H         | 4         | 122       | 674          |
|        | 17  | J         | 4         | 177       | 872          |
|        | 20  | K         | 4         | 33        | 161          |
|        | 21  | L         | 5         | 123       | 538          |
|        | 22  | M         | 5         | 89        | 490          |
|        | 24  | N         | 5         | 133       | 656          |
|        | 25  | P         | 6         | 143       | 741          |
|        | 27  | Q         | 6         | 100       | 519          |
|        | 28  | R         | 6         | 54        | 523          |
| June   | 3   | S         | 7         | 109       | 563          |
|        | 14  | T         | 7         | 12        | 62           |
|        | 15  | U         | 7         | 3         | 3            |
|        | 17  | V         | 7         | 106       | 501          |
|        | 19  | W         | 7         | 109       | 581          |
| July   | 2   | A (green) | 8         | 38        | 176          |
|        | 3   | B         | 8         | 166       | 753          |
|        | 5   | C         | 8         | 170       | 900          |
|        | 6   | D         | 9         | 149       | 675          |
|        | 8   | E         | 9         | 100       | 472          |
|        | 9   | F         | 9         | 21        | 105          |
|        | 10  | G         | 9 & 10    | 111       | 511          |
|        | 11  | H         | 10        | 147       | 568          |
|        | 12  | J         | 10        | 111       | 370          |
|        | 15  | K         | 10        | 27        | 118          |
|        | 17  | L         | 10        | 51        | 165          |
|        | 18  | M         | 11        | 39        | 122          |
|        | 19  | N         | 11        | 71        | 287          |
|        | 20  | P         | 11        | 17        | 29           |
| June   | 25  | A (blue)  | 12        | 15        | 15           |
|        | 26  | B         | 12        | 100       | 123          |
|        | 27  | C         | 12        | 20        | 54           |
|        | 28  | D         | 12        | 26        | 79           |
| July   | 1   | E         | 12        | 5         | 5            |
| Aug.   | 2   | F         | 12        | 6         | 8            |
|        | 7   | G         | 12        | 9         | 9            |
|        | 8   | H         | 12        | 8         | 8            |
| Totals |     |           | 3565      | 18,114    | 504.4        |

Area in square statute miles..... 16.82

TIDE NOTE FOR HYDROGRAPHIC SHEET

December 17, 1935..

Division of Hydrography and Topography:

✓ Division of Charts: Attention: Mr. E. P. Ellis

Tide Reducers are approved in  
12 volumes of sounding records for

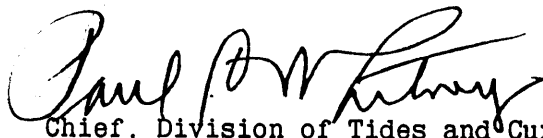
HYDROGRAPHIC SHEET 5880

Locality Approaches to New Bedford Harbor, Coast of Massachusetts.

Chief of Party: W. D. Patterson in 1935  
Plane of reference is mean low water reading  
1.1 ft. on tide staff at Clark Point  
10.6 ft. below B.M. 1  
0.6 ft. on tide staff at West Island  
13.3 ft. below B.M. 1  
1.0 ft. on tide staff at South Dartmouth  
11.4 ft. below B.M. 1

Height of mean high water above plane of reference is 3.7 feet at  
each tide station.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

Date. Oct. 31, 1935

## GEOGRAPHIC NAMES

Survey No. 5880Chart No. 1210-3Diagram No. 1210-3

Approved by the Division of Geographic Names, Department of Interior. ✕

Referred to the Division of Geographic Names, Department of Interior. R

Under investigation. Q

| Status | Name on Survey  | Name on Chart                          | New Names<br>in local use | Names assigned<br>by Field | Location |
|--------|---|--|---------------------------|----------------------------|----------|
|        | <u>Apponaganset River</u> ✓   | same                                   |                           | ✓                          |          |
| ✓      | <u>Great Island</u>   |  |                           |                            |          |
| ✓      | <u>South Dartmouth</u>  | same                                   |                           |                            |          |
| ✓      | <u>Ricketsons Point</u> ✓   | Ricketson Point                        |                           | ✓                          |          |
| ✓      | <u>Mashers Point</u>  | Ch 249                                 |                           |                            |          |
| ✓      | <u>Clark Cove</u> ✓   | same                                   |                           | ✓                          |          |
| ✓      | <u>Clark Point</u> ✓  | "                                      |                           | ✓                          |          |
| ✓      | <u>Sconticut Neck</u> ✓   | "                                      |                           | ✓                          |          |
| ✓      | <u>Sconticut Point</u> ✓  | "                                      |                           | ✓                          |          |
| ✓      | <u>Angelica Rock</u> ✓  |  | ✓                         | ✓                          |          |
| ✓      | <u>West Island</u> ✓  | same                                   |                           | ✓                          |          |
| ✓      | <u>Long Island</u> ✓  |  |                           |                            |          |
| ✓      | <u>Round Island</u> ✓   |  |                           |                            |          |
| ✓      | <u>Round Cove</u> ✓   |  |                           | ✓                          |          |
|        | <u>Round Neck</u>   | not approved since it is now an island |                           |                            |          |
| ✓      | <u>North Cove</u> ✓   | Ch 249                                 |                           | ✓                          |          |
| ✓      | <u>North Point</u> ✓  | same                                   |                           | ✓                          |          |
| ✓      | <u>Nasketucket Bay</u> ✓  | "                                      |                           | ✓                          |          |
| ✓      | <u>Old Kellick Rock</u> ✓   |  | ✓                         | ✓                          |          |
|        | <u>White Rock</u> <i>shas is another White Rock 1/2 mile S.W. of West I</i> ✓ |  | ✓                         | ✓                          |          |
| ✓      | <u>Shaw Cove</u> ✓  |  | ✓                         | ✓                          |          |
| ✓      | <u>Lone Rock</u> ✓  |  | ✓                         | ✓                          |          |
| ✓      | <u>Hunt Rock</u>  | ✕                                      | ✓                         | ✓                          |          |



Date Oct. 31, 1935

## GEOGRAPHIC NAMES

Survey No. 5880Chart No. 1210-3Diagram No. 1210-3

Approved by the Division of Geographic Names, Department of Interior. \*

Referred to the Division of Geographic Names, Department of Interior. R

Under investigation. Q

| Status | Name on Survey           | Name on Chart  | New Names<br>in local use | Names assigned<br>by Field | Location |
|--------|--------------------------|--|---------------------------|----------------------------|----------|
| ✓      | <u>Little Bay</u>        | Ch 249   |                           | ✓                          |          |
| ✓      | <u>Nasketucket River</u> |  |                           | ✓                          |          |
| ✓      | <u>Puppy Rocks</u>       | Ch 249   |                           | ✓                          |          |
| ✓      | <u>Egg Island</u>        | no longer exist as islands<br>off of starbards 6/31/36 KTA |                           | ✓                          |          |
| ✓      | <u>Little Egg Island</u> |  |                           |                            |          |
| ✓      | <u>Fish Island</u>       | Ch 249   |                           |                            |          |
| ✓      | <u>Pea Island</u>        | "  |                           | ✓                          |          |
| ✓      | <u>Nasketucket R.</u>    | "  |                           | ✓                          |          |
| ✓      | <u>Black Rock</u>        | "  |                           | ✓                          |          |
| ✓      | <u>Wards Rock</u>        | "  |                           | ✓                          |          |
| ✓      | <u>White Rock</u>        | "  |                           | ✓                          |          |
|        | Add                      |  |                           |                            |          |
| ✓      | <u>Apponaganset Bay</u>  | Ch 249   |                           | ✓                          |          |
| ✓      | <u>Dartmouth Rock</u>    | "  |                           | ✓                          |          |
| ✓      | <u>Old Bartlemy</u>      | "  |                           | ✓                          |          |
| ✓      | <u>Butler Flats</u>      | 249, 252, Light List.                                      |                           |                            |          |
| ✓      | <u>Bents Ledge</u>       | 249, 252   |                           |                            |          |
| ✓      | <u>Fort Flat</u>         | 249, 252   |                           |                            |          |
| ✓      | <u>Old Kelick RK</u>     | local use<br>see T 6357                                    |                           |                            |          |
| ✓      | <u>Little Island</u>     | GN-114   |                           |                            |          |
|        |                          | names approved 11/13/35                                    |                           |                            |          |
|        |                          | KTA  |                           |                            |          |

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. .5880

The following statistics will be submitted with the  
cartographer's report on the sheet:

|   |  |
|---|--|
| Number of positions on sheet                            | 3565   |
| Number of positions checked                             | 357 Mostly detached positions on critical<br>shoals and rocks. |
| Number of positions revised                             | 33   |
| Number of soundings recorded                            | 18,114   |
| Number of soundings revised                             | 248  |
| Number of signals erroneously<br>plotted or transferred | ✓<br>.....   |

Date: Jan. 22, 1935

Verification by Harold W. Murray

Time: 13 1/2 days

Review by R. G. Christman

Time: 10 1/2 hrs

HYDROGRAPHIC SURVEY NO. 5880

Smooth Sheet Yes

Boat Sheet 1

Sounding Records Yes Vols. 12

Descriptive Report Yes

Title Sheet Yes

List of Signals Vol. 1

Landmarks for Charts (Form 567) Yes

Statistics Yes

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) No

Special Chart for Lighthouse Service Yes  
(Circular Nov. 30, 1933)

Remarks

# Verification Report on H-5880 (1935)

## 1. Condition of Records:

The records are neat, legible and conform to the requirements of the Hydrographic Manual except as follows: ✓

- a. Objects or obstructions and dangers noted in the "remarks column" such as docks, fish traps and sunken rocks were not shown on the plot sheet. ✓
- b. Numerous notations "Rks" obtained at critical soundings were shown on the smooth sheet and accompanied by rather long leaders ( $\frac{1}{4}$  to  $\frac{3}{8}$ ") in ink. These were removed and new "Rks" noted immediately to the right of the cited sounding (in about 85% of the cases), with out the leaders. ✓
- c. Lat. & Long. values were not consistently noted at all detached positions or where the locality of the mark was materially changed. ✓

## 2. Shoreline and Control.

The shoreline and control shown on this survey sheet originals with T-6356, T-6357, T-6358, T-6373 and T-6374; ✓  
all 1935 surveys. ~~also T-~~

## 3. Sounding Line Crossings.

General agreement of sounding line crossings is within 1 foot. However, several differences of 2 to 6 feet in agreement of adjacent lines are noted and the more important are discussed in the D.R., page 2, para. under "Discrepancies" (pages 1 & 2). ✓  
(See par. 4 below).

#### 4. Depth Curves

The usual depth curves may be satisfactorily drawn <sup>including portions of the zero foot curve.</sup> within the limits of the survey. Several perturbations in depth curves are noted throughout the sheet, are probably caused by adjacent lines being slightly too short or too deep and are of minor importance. Examples are: lat.  $41^{\circ}37.3$ , long.  $70^{\circ}49.9$  - 12' curve; lat.  $41^{\circ}36.3$ , long.  $41^{\circ}53.0$  - 12' curve and lat.  $41^{\circ}35.45$ , long.  $70^{\circ}54.8$  - 18' curve. Half-foot soundings were freely used in smoothing out depth curves.

#### 5. Junctions with Contemporary Surveys.

- a. The junctions on the south with H-5882(1935) and on the east with H-5883(1935) are satisfactory. However, the irregularity in the 12 foot curve in lat.  $41^{\circ}37.3$ , long.  $70^{\circ}49.9$  is unusual (at junction with H-5883). <sup>partly adjusted in making this junction off</sup>
- b. The junction on the north with H-5881(1935) is satisfactory.   
 See par. 7d below regarding buoy.

#### 6. Field Plotting.

Field plotting and plotting of soundings are satisfactory. ✓

#### 7. Remarks.

- a. Statements in the D. R. affecting verification have been considered. ✓
- b. The dock in lat.  $41^{\circ}35.25$ , long.  $70^{\circ}51.56$  was plotted from

a remark in the sounding records and is not shown on the contemporary topographic sheet (Vol. 7, page 50). An appropriate note is shown on the smooth sheet.

c. Sounding along rocks. In the vicinity of lat.  $41^{\circ}35'$ , long.  $70^{\circ}56.7'$ , references to sounding records are noted on the sheet in lieu of reporting on large scale insects per authority of Lt. Green of this office. Selected soundings, however, have been plotted on the smooth sheet.

d. Aids to navigation. The two buoys in lat.  $41^{\circ}36.3'$ , long.  $70^{\circ}53.6'$  are approximately 10 to 15 m. NE of the position shown on T-6374 (1935). The hydro. position <sup>has been</sup> shown on the smooth sheet.

Buoys "7" and "8" at the position with H-5881 (1935) vary 10 to 30 m from the position on that sheet. In this connection, the buoys on the present survey were located on May 11 whereas those on H-5881 (1935) were located on ~~May~~ June 17. Therefore the positions located on H-5881 (1935) are the more recent locations.

8. Verified by Harold W. Murray Jan. 22, 1936



Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5880 (1935) FIELD NO. 3

Approaches to New Bedford, Buzzards Bay, Massachusetts.

Surveyed in May - August 1935

Instructions dated July 11, 1934 and Suppl. May 9, 1935

(W. D. PATTERSON)

Hand Lead Soundings.

3 Point fixes on shore signals.

Chief of Party - W. D. Patterson.

Surveyed by - D. S. Ling, A. M. Alvarez, W. H. Jennings, G. F. Jordan.

Protracted by - G. F. Jordan, and J. C. McIlwaine.

Soundings penciled by - W. D. Patterson, G. F. Jordan, and C. R. Smith.

Verified and inked by - Harold W. Murray.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual except as follows:

- a. An excessive number of leaders to notes was used on the smooth sheet, especially in connection with the abbreviation "Rks". By careful placing of this abbreviation the verifier eliminated a large number of such leaders.
- b. Latitude and longitude were not always noted even though a material change of locality was made during the investigation of shoal spots.

The Descriptive Report satisfactorily covers all items of importance.

2. Compliance with Instructions for the Project.

The plan and character of development is in accordance with the instructions, except that the examination of rocks and shoal areas was prevented by the disbanding of the party on account of lack of funds

3. Shoreline and Signals.

The shoreline and topographic signals originate with T-6356, T-6357, T-6358, T-6373 and T-6374, all of 1935. *The shoreline was compared with airphoto compilation T-5604 (1934).*

4. Sounding Line Crossings.

*R.J.C. - Nov. 17, 1936.*

The sounding line crossings are satisfactory, the depths generally agreeing within 1 foot or less.

5. Depth Curves.

Within the limits of the survey the usual depth curves may be satisfactorily drawn including portions of the low water line.



6. Junctions with Contemporary Surveys.

The junctions with H-5881 (1935) on the north, H-5883 (1935) on the east and H-5882 (1935) on the south are satisfactory.

7. Comparison with Prior Surveys.a. H-158 (1844), H-159 (1844-5).

These surveys are on scale 1:20,000 and show a rather open development of the area under consideration. Later surveys on larger scale show a much closer development and are the basis for the present charts. The above surveys should not be considered in future charting.

It is noted that the hydrography on H-158 (1844) was re-plotted on H-159 (1844-5) but the 5 foot sunken rock (not charted) shown on the former in latitude  $41^{\circ}34.2'$ , longitude  $70^{\circ}57.2'$  (1845) datum) was erased from the latter, probably having been an erroneous plotting of Bents Ledge which is about  $1/5$  mile to the southwest of this position. No attempt was made to trace the 5 foot sounding in the original record because no position number was indicated on the sheet, but the later surveys show regular bottom at 24 feet in this area.

b. H-2229 (1895), H-2230 (1895).

These surveys on scale 1:20,000 are a close development of the area under consideration. The agreement with the present survey is good and there are only a few places where there has been any change in the bottom. Several new shoals were located but the least depths on known shoals were not always confirmed. As it is very difficult to determine the highest point of a rock in these waters by the method of drift sounding, where the lesser depth occurs on the above surveys it has been retained and is shown on the present survey in blue.

A number of differences in details of inshore rocks were noted. The Chief of Party in discussing a previous season's work along this coast stated that heavy ice frequently formed along shore during severe winter weather, lifting and transporting loose rocks and boulders. This probably accounts for some of the changes in depths as well as small shifts in position. The 1895 survey shows most of the rocks by minus soundings, accentuated by the zero curve, and were not charted as rocks but only by sanding within the area of the curve giving the impression that some of them were bare rocks, see Descriptive Report "Comparison with Previous Surveys". However, some of these rocks were not adequately covered by the present survey and have been retained. They are indicated on H-5880 (1935) by the rock awash symbol in blue.



The following are some of the outstanding features.

- (1) ✓ The 2 foot sounding (charted) from H-2230 (1895) in latitude  $41^{\circ}34.72'$ , longitude  $70^{\circ}56.50'$ , was noted as a spile on that survey. It does not appear on blue print 18189 (1919), nor was it found on the present survey. It has probably disappeared and should no longer be charted.
- (2) ✓ The detached 4 foot sounding (charted) from H-2230 (1895) in latitude  $41^{\circ}34.57'$ , longitude  $70^{\circ}56.28'$ , falls near a 5 foot spot on the present survey. The sounding record notes that "Considerable time was spent drifting in clear smooth water" while examining the area where the 4 foot sounding is charted. The building of a breakwater adjacent to this spot may have made some changes. The present depths are accepted and the old 4 foot sounding, which is no longer dangerous to navigation, was not carried forward.
- (3) ✓ The 6 foot sounding (charted as a detached spot) at latitude  $41^{\circ}35.12'$ , longitude  $70^{\circ}55.84'$ , falls on the edge of the 6 foot curve on the present survey and was not carried forward.

The Descriptive Report notes (No. 12) that Dr. Prescott (see page 7 of Descriptive Report) reports 4 feet in this vicinity and recommends charting of that depth. The present survey shows 3 feet about 50 meters to the southward and the charting of a 4 at this place would be of doubtful value especially in view of the uncertainty of its location.

- (4) ✓ The bare spot (sanded area) charted in latitude  $41^{\circ}35.50'$ , longitude  $70^{\circ}55.64'$ , comes from H-2230 (1895), where it is shown on a line of soundings by a minus 1, rock. The present survey shows a rock that bares 2 feet at MLW about 30 meters to the westward. As the sounding party was in this vicinity at a low tide the representation on H-5880 (1935) of the rocks near Mosher Point should be accepted for future charting.
- (5) ✓ The detached spots of 12, 12, and 11 feet (charted) in the middle of Clark Cove northward of latitude  $41^{\circ}36'$  are 12,  $12-1/2$ , and  $11-1/2$  in the records of H-2230 (1895). The present survey shows depths from  $1/2$  to 1 foot deeper at these points but as the bottom is sticky mud none of these soundings were retained.
- (6) The line of rip rap (charted) on H-2230 (1895) in the northwest corner of Clark Cove (latitude  $41^{\circ}36.8'$ , longitude  $70^{\circ}55.8'$ ) actually originates with T-2220

(1895). This feature was not located by the present hydrographic or topographic surveys, however, a sewer outlet which falls at the extremity of the line of rip rap is shown on T-6374 (1935.) A sounding line of the present survey was broken at this line and resumed on the other side indicating that the remains of some structure which probably bares at low water still exists. This has been carried forward to H-5880 (1895) as a broken line, which probably is a better representation than the rip rap symbol now charted.

- (7) The seven detached 18 foot soundings charted in latitude  $41^{\circ}34.8'$ , longitude  $70^{\circ}54.7'$  come from H-2229 (1895) and H-2230 (1895). The present survey shows no depth less than 19 feet in this vicinity. The bottom is regular and in general a slight deepening is indicated. The foregoing also applies to the five 18 foot soundings charted about  $1/2$  mile N by W of the above position. These two groups of 18 foot soundings should not be used in future charting.
- (8) Two small islets and two sanded bare spots are charted in the vicinity of latitude  $41^{\circ}35.55'$ , longitude  $70^{\circ}54.55'$ , from H-2230 (1895). The present survey located a rock awash at MHW in the position of the easternmost islet. The westernmost islet was found to have been erroneously plotted from a note in the sounding record between pos. 89f and pos. 90f (green). When correctly plotted it falls about 40 meters east of a rock awash at MHW located on the present topographic survey T-6374. Since the original location was quite approximate the present position of this rock should be accepted. The two sanded bare spots originate with minus  $1/2$  foot soundings and the present survey located a rock awash in the position of one of these spots. The other minus  $1/2$  foot RK sounding has been carried forward as a rock awash. The present delineation of rocks in this area, with the addition of the rock carried forward, should be used for charting and the delineation of rocks shown on H-2230 (1895) disregarded.
- (9) The 1 foot spot charted in latitude  $41^{\circ}35.50'$ , longitude  $70^{\circ}54.53'$ , comes from H-2230 (1895). The original records show that it is a rock definitely located by a good 3 point fix. Although two parties searched for rocks in this vicinity without finding the 1 foot spot, its existence can not be considered disproved. (See No. 24 in Descriptive Report). It has, therefore, been retained.
- (10) The 6 foot sounding from H-2230 (1895) charted in latitude  $41^{\circ}35.42'$ , longitude  $70^{\circ}54.45'$ , was a definitely located rock with 10 feet of water alongside. Although

- ✓ the present Descriptive Report states that it "no longer exists" it does not give any details of its removal. (See No. 23 Descriptive Report). In view of the difficulty of finding the least depth on rocks in these waters by drift sounding the 6 foot sounding has been retained.
- (11) ✓ The islets surrounded by sanding near the wharf at Clark Point were charted from minus soundings on H-2230 (1895). The present survey shows them as rocks awash (See Descriptive Report No. 31). There are other differences in details of rocks along shore at this place but as the present survey was made at or near low water the representation on H-5880 (1935) should be accepted for future charting.
- (12) ✓ The 5 foot spot in latitude  $41^{\circ}37.19'$ , longitude  $70^{\circ}54.76'$ , and the 6 foot spot in latitude  $41^{\circ}37.21'$ , longitude  $70^{\circ}54.57'$ , are charted from H-2230 (1895). The records show that they are soundings on the regular line, the former being 5-1/2 feet. The present survey shows 7 feet mud and sand bottom in both places. Because there has been a slight deepening in this general area, the soundings have not been retained and the representation on H-5880 (1935) should be accepted for future charting.
- (13) ✓ The detached 5 foot sounding charted in latitude  $41^{\circ}37.23'$ , longitude  $70^{\circ}53.35'$ , comes from H-2230 (1895) where it is plotted as 5-1/2. The present survey shows 6 in this vicinity and although not specially investigated during the 1935 survey the 5 foot spot should no longer be charted.
- (14) ✓ The detached 6 foot spot charted in latitude  $41^{\circ}37.04'$ , longitude  $70^{\circ}52.93'$ , comes from H-2230 (1895). An examination of the original record shows the sounding as 6.9 feet in a general depth of 9 feet. The present survey also shows a general depth of 9 feet but as no sounding falls exactly on this spot it has been carried forward as 7 on H-5880 (1935).
- (15) ✓ The 6 foot spot charted in latitude  $41^{\circ}36.55'$ , longitude  $70^{\circ}53.10'$  comes from H-2230 (1895) and is a sounding on the regular line. Although not investigated during the 1935 survey it falls on a 7 foot sounding and has not been retained. (See Descriptive Report No. 84).
- (16) ✓ Four 12 foot spots from H-2230 (1895) are charted on Butler Flats (latitude  $41^{\circ}36.2'$ , longitude  $70^{\circ}53.7'$ ). The present survey shows 13 to 14 feet in this area and the 12 foot soundings have not been retained (See Descriptive Report No. 77).

- (17) ✓ The 18 foot depth (charted) from H-2230 (1895) in latitude  $41^{\circ}36.23'$ , longitude  $70^{\circ}53.33'$ , falls in depths of 23 feet on the present survey. The 23 was the least depth obtained after 20 minutes of drift sounding. (Pos. 1c blue). The dredging of the channel probably influenced this soft bottom area and there is evidence of a general deepening. The 18 foot sounding is considered disproved and was not carried forward.
- (18) ✓ The details of the 12 foot curve in latitude  $41^{\circ}36.3'$  longitude  $70^{\circ}53.0'$  have changed. The present survey shows a 12 foot spot where the 11 is charted from H-2230 (1895) but a reference to the original records shows that the actual sounding was 11-1/2 feet. The 12 foot spot to the northward is now inside the 12 foot curve. The representation on H-5880 (1935) should be accepted for future charting.
- (19) ✓ The 1935 survey indicates that many of the features charted from H-2230 (1895) in the vicinity of latitude  $41^{\circ}36'$ , longitude  $70^{\circ}53'$  have persisted. The characteristic soundings from the above survey have been transferred to H-5880 (1935) in blue.
- (20) ✓ The detached 6 foot spot charted from H-2230 (1895) in latitude  $41^{\circ}36.34'$ , longitude  $70^{\circ}52.11'$  was not specially investigated during the 1935 survey. (See Descriptive Report No. 66). The original record does not indicate it as a rock and as it falls within the 6 foot curve on the present survey it has not been retained.
- (21) ✓ The detached 6 foot sounding charted in latitude  $41^{\circ}36.02'$  longitude  $70^{\circ}52.15'$ , comes from H-2229 (1895) and is one of three soundings of this depth with slightly deeper water inshore. It falls within the 6 foot curve of the present survey and has not been retained. Both surveys show the area in the vicinity of this point to be foul but there are a number of differences in details. The 1935 survey was made near low water and the representation on H-5880 (1935) should be accepted for future charting. (See Descriptive Report Nos. 60 and 61).
- (22) ✓ An examination of the sounding records of H-2229 (1895) shows that the 17 foot charted in latitude  $41^{\circ}35.12'$ , longitude  $70^{\circ}50.62'$  was a small sand spot. Because the present survey does not show a sounding in the same spot and the adjacent soundings are in good agreement between the two surveys, the 17 has been retained. (See Descriptive Report No. 47).

Depths over other detached spots (charted as 18) in this vicinity were found to range from 18.7 to 19.7 feet as against depths of 19 to 20 feet on the present survey. The soundings have not been retained and H-5880 (1935) should be accepted for future charting.

c. H-2250 (1896).

✓ This survey, on a scale of 1:10,000, slightly overlaps the present survey southward of Palmer Island. The area south-east of Palmer Island has been radically changed by dredging. Southwest of Palmer Island the agreement is good, except that the shoal area extending southwestward from the island is more extensive than in 1896.

d. H-2307 (1896-7).

✓ This survey on scale 1:10,000 covers the improved channel north-westward of Butler Flats and the area immediately adjacent to the channel. Depths are in very good agreement with the present survey except in the channel itself which has been dredged and now shows about 10 feet more water than the above survey. The 11 charted in latitude  $41^{\circ}37.05'$ , longitude  $70^{\circ}54.24'$ , (see Descriptive Report No. 93) comes from this survey where it is shown as 11-1/2 feet. The present survey shows 12-1/2 feet (plotted as 12) at this place. Because the present survey is adequate for charting purposes and because of minor changes immediately adjacent to the limiting lines of the dredged channel the above survey should be superseded and H-5880 (1935) used in future charting of this area.

e. H-2308 (1897).

✓ This survey on scale 1:20,000 is a continuation to the eastward of the surveys considered under par. 7b and the same general statement applies to it. Greater detail is shown on the old survey in some of the small bights. The present survey makes only general statements, as "foul" or "very foul" for these areas. They are of small importance but where detail is desired they should be charted from the 1897 survey. Rocks shown on the above survey by minus soundings have been transferred to H-5880 (1935) with the rock awash symbol in blue. Only two of them need special mention.

- (1) ✓ The rock charted as a sand spot in latitude  $41^{\circ}37.75'$ , longitude  $70^{\circ}51.50'$ , is shown as a minus 5 on the survey and was located by a 3 point fix. The present survey shows a rock "bare 2 feet at MLW" located by the topographer in approximately the same place. As the - 5 foot rock would be covered only at extreme high tide, it is assumed that the two are the same rock and that disintegration has taken place to bring the elevation down to 2 feet as shown on the 1935 survey.

- (2) The rock awash charted in latitude  $41^{\circ}36.20'$ , longitude  $70^{\circ}50.28'$ , is on the position of the letter "R" alongside a minus 4 of the survey. An examination of the records shows that it is a whaleboat sounding of minus 1 reduced for tide to minus 4 without any special note or comment. It is probably an error in recording as a minus 4 foot rock would be awash at MHW and would have been seen by the topographer while rodding in the shoreline about 20 meters to the southwest. The rock awash symbol, however, has been retained without stating the depth bare at MLW.

f. H-2601 (1902), H-2601b (1903).

These surveys on scales 1:10,000 and 1:20,000 respectively are special examinations of certain areas in the approach to New Bedford. The results of these examinations in the area under consideration had been added to the 1895 survey in green. The 21 foot depth charted in latitude  $41^{\circ}35.29'$ , longitude  $70^{\circ}53.65'$  comes from H-2601 (1902). As the present survey shows an indication of shoaling at this place and other soundings in the area are in good agreement the 21 has been retained. (See Descriptive Report No. 33). Also see par. 7b (19) above relative to the area in latitude  $41^{\circ}36'$ , longitude  $70^{\circ}53'$ .

Because the present survey with indicated additions is adequate for charting purposes the above surveys should be superseded.

g. H-2968 (1908-9-13 and 14) W.D.

This survey on scale 1:20,000 is a wire drag examination of part of the approaches to New Bedford Harbor. The present survey does not show any inconsistencies with the above survey except in the vicinity of latitude  $41^{\circ}35.5'$ , longitude  $70^{\circ}53.1'$  where H-5880 (1935) shows a 25 and several 26 foot soundings in an area shown clear at 27 feet by the wire drag sheet.

Actual soundings taken during the wire drag survey are shown on H-5880 (1935) in green, except the 24 foot sounding, mud bottom, formerly charted in latitude  $41^{\circ}35.17'$ , longitude  $70^{\circ}52.99'$ , which was expunged from the chart following the receipt of blue print 22786 (1928-9). While the blue print does not definitely state that the area was improved it is probable that dredging was done since the depths are deeper on the blue print than on the surveys prior to it.

8. Comparison with Chart 252 (New Print dated May 23, 1935).

a. Hydrography.

Within the area of the present survey the chart is based on surveys discussed in the foregoing paragraphs and on the following information:

- (1) ✓ Blue prints Nos. 22784, 22785 and 22786 of 1928-9 are U. S. Engineer surveys of the improved channel from Butlers Flats to Palmer Island and the southern approach to this channel. The sounding outside the channel, which is shown on the chart by limiting channel lines, are in fair agreement with the present survey. Depths in the southern approach to the improved channel, on and near the range formed by Butler Flats light and Palmer Island light, are slightly deeper on the present survey ( $1\frac{1}{2}$  to  $1-1\frac{1}{2}$  feet).
- (2) ✓ Blue prints Nos. 23739 and 23740 of 1930 and blue prints Nos. 24435 and 24436 of 1931 show the improved channel after dredging. This information is shown on the chart by limiting channel lines and controlling depth note. The latter information has been superseded by later reports (see par. 8b, this review).
- (3) Blue print 16561 of 1916 is a survey by the Massachusetts Harbor and Land Commission showing the results of dredging in Apponaganset River at South Dartmouth. Slight general changes have apparently occurred in this area and this blue print should now be superseded by the present survey except as follows:

The 6 foot sounding (charted) at latitude  $41^{\circ}35.03'$ , longitude  $70^{\circ}56.85'$ , originating with this blue print falls in depths of 8 to 9 feet on the present survey which made no special examination. The field party notes that a small sand shoal is reported here and recommend the retention of the 6. (See Descriptive Report, page 3, item 1). The 6 foot sounding should, therefore, be continued on the chart until disproved.

- (4) The following charted soundings were spotted on a plan of Apponaganset Harbor and by the Massachusetts Harbor and Land Commission, and is attached to Chart letter 408 of 1903:
  - (a) The 5 foot sounding charted in lat.  $41^{\circ}34.58'$ , long.  $70^{\circ}56.85'$
  - (b) The 6 foot sounding charted in lat.  $41^{\circ}34.51'$ , long.  $70^{\circ}56.82'$
  - (c) The 6 foot sounding charted in lat.  $41^{\circ}34.47'$ , long.  $70^{\circ}56.80'$

The present field party drifted over the area without finding the above depths (Vol. 12, page 47), however, no drift soundings were recorded. Dr. Prescott reports that these rocks exist but are charted too far offshore. (See Descriptive Report, page 3, item 2, 3 and 4). The present examination is not considered conclusive and all three of these soundings should be retained on the chart in there present position until definitely located or disproved.

- (d) The 5 foot sounding charted in lat.  $41^{\circ}34.72'$ , long.  $70^{\circ}56.61'$
- (e) The 7 foot sounding charted in lat.  $41^{\circ}34.63'$ , long.  $70^{\circ}56.55'$

✓ The present field party spent an hour and a half in drift sounding over the position of each of these soundings. They located two rocks with depths of 4-1/2 and 8 feet in slightly different position. The 5 and 7 foot soundings should now be replaced on the chart by the present depths.

- (5) For discussion of charted bare rock off Mosher's Pt. see par. 9, review T-6374 (1935).
- (6) The present topographic party did not locate Egg Island and Little Egg Island because of the discontinuance of the work and the locations of these islands were left to the hydrographic party.
  - (a) ✓ Egg Island (lat. 41°36.65', long. 70°53.3') is charted as bare at high water from T-2220 (1895). However, that survey actually shows the island as bare at low water only. Mr. Jordan, of the present survey party, stated verbally that the island is composed of sand and boulders covered with grass and is probably awash at high water. The present hydrographic delineation of this island, which shows no part of it bare at high water, should be used for charting.
  - (b) Little Egg Island (lat. 41°37.2', long. 70°53.2') is charted from T-2220 (1895) and H-2230 (1895) as a long narrow shoaling bare at low water with a small spot bare at high water. No special information ~~was~~ could be obtained, however. The present hydrography shows the island as bare at low water only and Mr. Jordan could throw no additional light on this. The high water spot has probably eroded and this island should now be charted as shown on H-5880 (1935).

b. Controlling Depth.

The survey shows a controlling depth through the dredged channel into New Bedford in excess of that shown on the chart "26 feet June 1934", but the entrance range below the dredged channel shows depths of 26 feet. This depth is also in agreement with the U. S. Engineers' Report, Chart letter 630/2 of 1935. Also see Descriptive Report page 3, "Channels".

c. Aids to Navigation.

The aids to navigation are in agreement with their charted positions except as follows:

- (1) The four WS buoys in the harbor at South Dartmouth were not located by the survey.



- (2) Red buoy No. 8 (lat. 41°34.85', long. 70°56.80') was located about 100 meters southward of its charted position.
- (3) Red buoy No. 6 (lat. 41°34.65', long. 70°56.57') was located about 80 meters south of its charted position.
- (4) The two buoys marking the entrance to the dredged channel at Butler Flats are located about 100 meters NNW of their charted positions, and red buoy No. 8 is located about 50 meters NNW of its charted position.
- (5) Buoy No. 2 at Bents Ledge (lat. 41°34.1', longitude 70°54.85') is located about 100 meters northeast of its charted position.
- (6) Several beacons marking the channel into Little Bay are not charted.

In all cases the aids as located by the survey satisfactorily mark the feature intended.

9. Field Plotting.

Field plotting was satisfactory except for the placing of the abbreviation "Rks" see par. 1a of this review.

10. Additional Field Work Recommended.

All important shoals should be examined with the wire drag for least depth as recommended by the Chief of Party. (See page 7 of the Descriptive Report). The soundings charted from outside sources should be located or their existence disproved. These soundings are discussed under par. 8a(3) and par. 8a(4), items a, b and c of this review.

11. Note to Compiler.

The compiler's attention is called to the soundings retained on the chart from outside information. (See par. 8a(3) and par. 8a(4), items a, b, and c of this review).

12. Superseding Old Surveys.

Within the area covered the present survey, with the indicated additions from previous surveys, supersedes the following surveys for charting purposes:

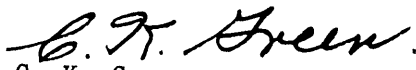
|        |          |         |
|--------|----------|---------|
| H-158  | (1844)   | in part |
| H-159  | (1844-5) | " "     |
| H-2229 | (1895)   | " "     |


|                 |                                  |
|-----------------|----------------------------------|
| H-2230 (1895)   | in part                          |
| H-2250 (1896)   | " "                              |
| H-2307 (1896-7) | " "                              |
| H-2308 (1897)   | " " (except as noted in par. 7e) |
| H-2601 (1902)   | " "                              |
| H-2601b(1903)   | " "                              |

13. Reviewed by - R. J. Christman, and R. L. Johnston, Feb. 25, 1936.


Inspected by - A. L. Shalowitz.

Examined and approved:

  
C. K. Green,  
Chief, Section of Field Records.

  
Chief, Section of Field Work.

  
Chief, Division of Charts.

  
Chief, Division of H. & T.

25 Jan 17, 1936  
EUG

11/24/60 - 1210 Reconst - Fully applied thru charts  
252 and 257  
MQ